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INDEX ISSUE

CLINICAL MEDICINE

Original Articles

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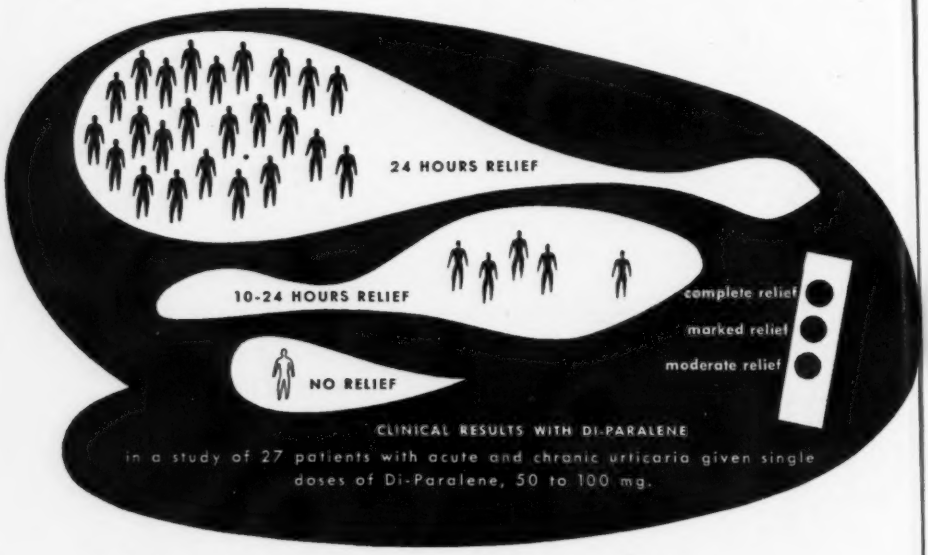

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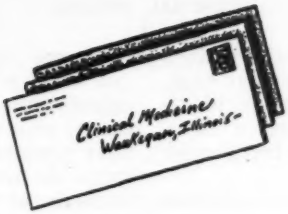

Original Articles

Concerning the Signs of Increased Intracranial Pressure

By RUSSELL MEYERS, M.D., *Iowa City, Iowa*

A CLINICAL concept, having once gained popular favor, dies hard, despite the accumulation of contrary evidence derived from daily experience. For example, for one and one-half centuries following Sturm's publication in 1697, visual accommodation for near objects was considered to be accomplished by elongation of the eyeball through action of the extraocular muscles. Another interesting case in point but having far more serious implications is the clinical concept of increased intracranial pressure—a doctrine which, despite occasional assaults, powered by sound observation and experiment, has prevailed for the past fifty years.

Every year, hundreds of medical students commit to heart the so-called Kocher formulae: (a) that increased intracranial pressure stimulates the medulla to produce a rise in blood pressure, fall in pulse rate, stertorous respiration and blunting of consciousness progressing through stupor and coma to death; (b) (a corollary of the first) that this combination of signs permits the clinician to conclude that intracranial pressure is on the increase presumably due to hemorrhage, infection, edema, neoplasm or other "space-occupying lesion"; and (c) (conversely) that the absence of these signs permits the conclusion that intracranial pressure is not significantly increased and therefore there exists no evidence of a surgically amenable lesion. These formulae are ultimately brought to the patient's bedside where they play a promient role in diagnostic and therapeutic considerations.

Unfortunately, these oft-iterated concepts are not reliable. The actual correlation between manifest clinical signs, measurable cerebrospinal fluid pressure and the character of the intracranial etiologic agent is disappointingly low. Thus, patients harboring progressive, surgically amenable lesions (even acute lesions) may exhibit neither increased intracranial pressure nor clinically significant variations of vital signs. Even when such patients enter upon their premoribund course, the Kocher pattern may not be demonstrable. Again, patients may exhibit the entire Kocher pattern and yet on mensuration prove to have no intra-

cranial hypertension as determined by lumbar and/or ventricular taps. Finally, high clinical levels of increased intracranial tension often exist without producing the Kocher pattern.

The reader will be curious to know how such obviously incorrect concepts could have become established. The answer is twofold: first, an unwarranted and unrecognized inference on the part of the original experimenters that the medulla *must* be the part of the brain influenced by pressure (in 1904, the medulla was the only generally acknowledged portion of the brain from which autonomic effects were evokable); and, second, an overreadiness on the part of clinicians to discount or forget the crucial features of the reported experiments. In order to produce the "well-known effects" of increased intracranial pressure, the latter must approach or surpass the level of the diastolic blood pressure (appr. 80 mm. Hg.). This important point was clearly stated in the early experimental protocols. Unfortunately, the quantitation was lost sight of and the qualitative considerations survived.

The normal range of cerebrospinal fluid pressure in the human is 6-12 mm. Hg. In clinical neurologic disorders a range of 15-25 mm. Hg. pressure constitutes a moderately severe intracranial hypertension and instances in which the pressures reach 31-45 mm. Hg. or more are exceedingly rare. These levels which, by and large, are those encountered in clinical problems are still a far cry from the 80 mm. Hg. called for by experiment. As subsequent animal and human studies have abundantly shown, such pressures do not *per se* produce the changes in blood pressure, pulse rate, etc., generally fancied by clinicians. The evidence on the whole favors *ischemia* (of whatever cause) rather than *increased pressure* as the process responsible for such neuroautonomic deviations as are encountered in clinical problems.

Circumstances being what they are, the physician who reposes a false confidence in the prevalent clinical doctrines concerning increased intracranial tension is likely to meet painful disappointment at the autopsy table. There is no simple rule-of-thumb with which we can at present replace the Kocher concept. Regardless of the pattern of autonomic deviation and of the measured level of cerebrospinal fluid pressure, *whenever a patient suspected of harboring an intracranial lesion is not "holding his own" or gaining ground, ventriculography should be recommended.* It is a relatively innocuous procedure and in the vast majority of cases can be relied upon to reveal the presence of a lesion for which surgery is indicated. If the ventriculograms prove negative, conservative measure may be resumed with reasonably high assurance that a surgically amenable lesion has not been overlooked.

University Hospital.

BUROW'S SOLUTION

Question:

Is there an easy way of making up the unstable Burow's solution in small amounts so that it will not be wasted? *M.D., Detroit, Mich.*

Answer:

Your pharmacist can make up small amounts of aluminum subacetate at a time, or for your patients' use.

A simple procedure is the use of commercial tablets (Domebro Tabs, Dome Chemicals, 250 East 43rd Street, New York City). One of these tablets plus 8 ounces of tap water makes up 1:10 Burow's solution.

Use of Ethylene Disulphonate* Therapy for Allergic Manifestations

A REPORT OF 64 CASES AND 54 CONTROLS

By HYMAN GOLDSTEIN, M.D., *New York, N.Y.*

IN THIS clinical study of 64 patients suffering from allergic manifestations and 54 controls, patients from November 15th, 1947 to January 15th, 1949, the value of intramuscular injections of ethylene disulphonate was tested. The clinical response in asthma, hay fever, vasomotor rhinitis, migraine and allergic skin lesions are tabulated. Most of these cases have been tested for the allergens responsible for the symptoms and have been previously desensitized, yet symptoms continued, for which they received adrenalin, tedral and other non-specific forms of therapy for emergency and remedial relief, prior to acceptance for ethylene disulphonate therapy.

Historical Data

In my series of 64 cases, I have found an antecedent unilateral history of existing allergy in 55 percent of the patients, and bilateral involvement in 8 percent, a total of 63 percent. Hereditary factors are therefore important. It indicates that such individuals are vulnerable to attacks of bronchial asthma, hay fever, migraine, skin, intestinal and vasomotor lesions. The foreign substances or allergens responsible for the symptoms are numerous, and are derived from biological and non-biological sources such as chemicals, dust particles, concentration pollen areas, animal dander, foods, epidermals and other incidentals. Injured intestinal mucosa may hasten allergic symptoms. Skin and mucous membranes are definite susceptible areas for allergic phenomena. Enzymic action and the relationship of tissue co-enzymes are said to play an important part in the individual subject to allergic reactions.

Non-specific desensitization, or a method which would inhibit or desensitize allergy interested many research workers. By 1948, at least 165 such methods or substances (good and bad) had been reported. Prominent among these are at least 10 antihistaminic drugs for the palliation of allergic disorders. S. L. Ruskin[1] used Sodascorbate (vitamin C) with success. Cutaneous injections of 0.2 cc. Sauer pertussis vaccine twice weekly for long periods of time is said to give relief in bronchial asthma. The author has used Sodascorbate and Sauer pertussis vaccine methods in cases of bronchial asthma for symptomatic relief. In patients who suffered from bacterial allergy such as bronchial asthma following acute upper respiratory infection, the author[2] injected the patients with 0.1 cc. typhoid vaccine at regular intervals using a Schick needle. This method of therapy lessened the respiratory infections.

Ethylene Disulphonate

While working with allergic children, I was particularly anxious to find a therapeutic agent that would help them obtain prolonged relief and effective treatment of their allergic disorders. My experience with the use of ethylene disulphonate in allergic conditions of children for the past fourteen months convinces me by its clinical response that it is such an effective therapeutic agent.

Ethylene disulphonate is a dilution of the drug to 1:10-15, in triple distilled water. It is put up in 2 cc., colored ampoules with a sterile syringe and

*The Ethylene Disulphonate ampoules 2 cc. each, with sterile syringes and needles were supplied by Spicer & Gerhart Co.

needle ready for intramuscular injection. The injection causes momentary pain, and quickening, or a series of muscle fibrillar twitchings within the injection area. This lasts only a minute or two. After this, the patient is comfortable. There are no constitutional reactions or any side effects. The relief from the suffering of the allergic symptoms is early, continuous for days, weeks or months, depending upon the individual case.

Dose

Concerning the dosage of ethylene disulphonate to be employed in the treatment of allergic patients, the standard dose is 2 cc. In children a single injection of 2 cc. is given, after which clinical progress is observed for several weeks, before deciding whether further treatment is necessary. In older children and adults, one 2 cc., dose is given each seven days, until three have been given. Here again, the patient is then observed for several weeks before deciding whether further treatment is required. There are exceptions to the general rule. Some cases of severe bronchial asthma with complicating pulmonary pathology require 3 or 4 series of three weekly injections from one to several months apart.

The symptomatic relief obtained is astonishing. In most of the cases only three injections were necessary. The reason some authors have reported failures was because too few doses were used in the few cases they have reported. It is important to give the patient a sufficient number of ethylene disulphonate injections, and, give time, for proper observation in each case, to fairly evaluate the clinical responses.

At the beginning of my experience, I followed the instructions as to diet and the preparation of the patient for a week before treatment started. However, I found that most of the patients were delinquent in following the instructions, and, further experience convinced me that such precautions were not vital. I instruct the patient to eat three meals daily consisting of milk, cheese, eggs; one slice bread or toast and butter at a meal, plenty of green vegetables, fruits and fruit juices, an average portion of meat or fish at the dinner meal, preferably cooked or broiled. Water is taken as desired. Fried foods, sugar, candy and cake are prohibited.

Other Clinical Studies

It is now about nine years since the work with Ethylene Disulphonate was begun in the United States, England and Belgium. Many research workers reported their experiences.

Clifford L. Bartlett[3] in June, 1944 and August, 1944, published two papers in which he showed favorable results in 247 children in 86.64 percent with an average of 1.41 ethylene disulphonate injections, and in 528 adults after observing all cases for nearly 3 years. He concluded that ethylene disulphonate offers a definite advance in the therapy of allergic conditions. W. Merrit Ketcham[4] and Valentina P. Wasson[5] reported very favorable results in a large series of cases. Clifford L. Bartlett,[6] in 1947, published an article covering six years investigation of 1800 cases of allergic disorders in all groups of individuals as to age and sex, showing very favorable results from ethylene disulphonate therapy. Whatever, the true mechanism may be, Ethylene Disulphonate judiciously administered in allergic disorders, gives favorable clinical responses.

Discussion

The basic fact that the treatment actually did relieve the asthma, hay fever sufferer and those complaining of other allergic disorders often does not impress the physicians generally. They seemed more interested in getting an explanation than a therapy. Many of our best therapeutic procedures today are still vaguely understood as to their mode of action, and yet are in continuous and successful use (hyperpyrexia therapy, hydrotherapy, roentgentherapy

TABLE I

Clinical Responses in 64 Private Patients Treated With Ethylene Disulphonate.

Diagnosis	No of cases	AGE	sex F M	*clinical response* excellent F M	good F M	fair F M	poor F M
Bronchial Asthma with daily paroxyms	21	5 yrs. to 13 yrs.	5 16	1 4	2		
and nocturnal cough and dyspnea				3 7	1 2		1
	4	27 yrs. to 59 yrs.	1 3	1 2	1		
Bronchial Asthma	4	3 to 9 yrs.	3 1	2 1	1		
with Hay-fever	3	17-39 yrs.	3	2	1		
with Urticaria and angioneurotic edema	3	5- 9 yrs.	2 1	2	1		
	6	9-17 yrs.	1 5	2	1 3		
Hay Fever-seasonal	3	19-48 yrs.	2 1	3			
Vasomotor rhinitis	3	8-17 yrs.	3		2		1
	2	34-42 yrs.	2	2			
Vasomotor rhinitis with migraine cephalic type	4	22-50 yrs.	3 1	2		1	1
with Menieres syndrome	1	46 yrs.	1	1			
		8 mts. to					
Allergic skin lesions	3	1½ yrs.	1 2	1 2			
Eczema	3	29-37 yrs.	2 1		1	1 1	
Acute urticaria	1	9 yrs.	1	1			
Chronic recurrent urticaria	1	39 yrs.	1		1		
Contact dermatitis	2	17-22 yrs.	1 1	1		1	
Total	64		28 36	18 23	7 9	3 1	3

TABLE II

Ethylene Disulphonate Dosage

Children, 44 cases	Age 8 Mts. to 17 Yrs.	male 28 female 16	No. of injections— 149 average 2 cc. intramuscular injections were 3.38 per child.	Duration of Therapy *7*, children required but one injection. *6*, children received two injections nine weeks apart. *21*, children received three injections a week apart.

One, child received 4; after the first, and an observation period of nine weeks, three injs. were given a week apart.

6, children received two series of injections at one to two months intervals of 3, a week apart. *One*, child required 7, *one* 9, and *one* child 11 *injections* over periods, 3 to 6 months.

Adults, 20 cases	Age 19 to 56 Yrs.	male 7 female 13	No. of injections— 97 average 2 cc. intramuscular injections were 4.85 per adult.	Duration of therapy *5*, patients received but one injection. *2*, required 3 injections one week apart, *2*, adults, received one inj. and, 9 weeks later, 3 injs. one week apart. *8*, received two series of 3 injs. each at six weeks interval, each 2 cc., inj. a week apart.

Two patients, required 9 injs., extended over a period of 5 months; and, *another patient* 12 injects., within a period of a year. The latter three adults suffered from a bronchial asthma status and bronchi-ectatic condition from fibrosis having had severe paroxysms of cough and dyspnea night and day. The relief is phenomenal and they can sleep at night.

in many of its applications, many instances of sulfonamide drugs, antibiotics and electric modalities). In evaluating the efficiency of any therapy, the accuracy of diagnosis and adequacy of dosage and administration by careful and experienced observers in clinical research work are prerequisites. One may hasten to report failures on an insufficient number of cases observed in insufficient duration of time, and also, to lack of these prerequisites. A new method of therapy must be given fair trial and consideration based on unbiased clinical test.

The contrasting clinical responses between the group treated with ethylene disulphonate and the control group is so obvious in favor of the former, that one is impressed by the fact that ethylene disulphonate has definite value as a therapeutic agent in allergic conditions. It is not a cure. It offers clear evidences of amelioration of the symptoms in the various allergic disorders.

In table 1, the clinical responses show 64 percent of the cases were excellent, 25 percent good, 6¼ percent fair, and 4¾ percent poor. The results were graded, as excellent, for all cases that responded soon after treatment with ethylene disulphonate was started, with amelioration of their symptoms, and upon completion of treatment, were free from symptoms for a period of three months, or more. The cases that showed early improvement, and freedom of symptoms for a period of one to three months, feeling comfortable after treatment was completed, were graded as good. The cases that were free from symptoms for one month or less were recorded as fair. The others were classified as poor. Emotional upsets in an

TABLE III

54 out of the 64 treated cases with Ethylene Disulphonate who were observed from several months to two years while receiving specific desensitizations, and non-specific asthma remedies prior to receiving series of ethylene disulphonate therapy were used as controls.

Diagnosis	Cases	Age	Method of Therapy	Duration Relief
Bronchial Asthma with daily cough and dyspnea paroxysms.	23 2	2 to 13 Yrs. 27 to 59	Specific desensitization also emergency adrenalin inj.	Emergency drugs were necessary at daily or weekly intervals, while under specific therapy.
Bronchial asthma with hayfever,	5	3 to 17 Yrs.	desensitizations plus seasonal antihistaminic therapy.	
with urticaria and angioneurotic edema.	3	3 to 9 Yrs.	antihistaminic therapy. sodium ascorbate therapy. also 0.2 cc. Sauer Vacc.	temporary relief
Hay-fever —seasonal and perennial.	4 3	9 to 17 19 to 48 Yrs.	Seasonal pollen desensitization and antihistaminic therapy.	temporary relief
Vasomotor rhinitis with migraine "cephalic type" with Meniere's syndrome	3 1	22 to 46 46 yrs.	Gynergen. Histamine diphosphate step-up inj. Jacobson's sol. intramuscular inj. series.	incomplete relief
Allergic skin lesions Eczema Acute urticaria Chronic recurrent urticaria Contact dermatitis	3 3 1 1 2	29-37 yrs. 8 Mts. to 1½ years 9 years 39 yrs. 17-22 yrs.	Antihistaminic therapy. and local ointments.	temporary relief
Total	54			

allergic patient can produce symptoms.

Psychosomatic influences and their adjustments in allergic individuals should be respected.

(Several stool specimens were examined and found to be negative for protozoa, ova, and larvae of helminths. Stool ova and larvae of parasites have been found occasionally in stools of allergic individuals).

Table 2, tabulates the dosage and duration of treatment of ethylene disulphonate: Two hundred and forty-six, 2 cc. intramuscular injections were administered to 44 children and 20 adults. The children received 149 injections, an average of 3.38 ethylene disulphonate injections per child. The adults received 97 injections, an average of 4.85 per patient. This is a distinct advantage over any of the other methods of treatment for allergic patients which requires a great deal of medication and injections.

Table 3, records the observations made of the 54 control cases, all of whom did not respond clinically to specific desensitization of several series of numerous injections. Those who were subject to oft repeated attacks of upper respiratory infection which induced clinical asthma, received 0.1 cc., typhoid vaccine twice weekly for two weeks, then once weekly for two weeks, after which once monthly for several months. This form of non-specific vaccine therapy helped greatly to reduce respiratory infections to a marked minimum degree. Asthmatic patients received adrenalin 1:1000 solution 0.2 cc. to 0.6 cc. subcutaneously for emergency relief. Between emergencies, they received 0.2 cc. twice weekly injections of Sauer Pertussis vaccine, which often lessened the intensity and frequency of attacks. Sodascorbate tablets given in doses of 12 tablets daily divided into 4 tablets, administered ½ hour before or after each meal three times daily, worked out favorably in children to alleviate asthma paroxysms. Tedral tablets were placed in medicine cabinets for emergency relief purposes. Histamine antagonists[7] of many varieties were used for varied allergic disorders. When any of these forms of therapy were discontinued, the patient was as badly off as before treatment. In many instances, they required frequent emergency care while under treatment. By contrast, the allergic individuals treated with ethylene disulphonate enjoyed long remissions between mild symptom periods. The symptom periods became less in number and intensity, and remissions longer. The patients did not cough much or suffer any other distress, as they did with the other methods of treatment. The dyspnea attacks were very much easier, and then would subside. In the early phases of treatment (first two or three weeks) in the sufferers from severe asthma, only in two cases did I have to resort to one injection of 0.2 cc. adrenalin. In one case no more emergency treatment was necessary, whereas, prior to the ethylene therapy this same patient was treated in hospitals with emergency adrenalin injections every few days for many months. The other case required one 0.6 cc., adrenalin subcutaneously. On several occasions he required ½ Tedral tablet for relief. After the first series of ethylene injections in all these instances relief was so great that emergency treatment was not needed since. In the very severe cases of asthma and hay-fever, I have the mother administer two Sodascorbate tablets after each meal. It supplies vitamin C in an assimilable form. All of my patients experienced a good general feeling of well being better than ever before. The peak of remissions in all cases were many times greater, than the remissions the same patients experienced while they were receiving other methods of therapy.

Summary

In a controlled series of patients suffering from allergic disorders treated with ethylene disulphonate intramuscular injections, therapeutic results compared favoraby with those follow-

ing other methods of therapy. The series comprised 64 treated patients who received a total of 246 ethylene disulphonate 2-cc. injections, an average of 3.38 per child, and 4.85 injections per adult. There were no side reactions or any constitutional symptoms from this therapeutic method. In this group were 44 children and 20 adults. Of these groups, 64 percent showed excellent response to treatment; 25 percent good clinical response, 6 percent fair clinical response, and 4 percent poor clinical response. The control group of 40 children and 14 adults, or 54 cases of allergic disorders, required continuous treatment. Most of them were tested (96 percent) and desensitized with injectable antigens several times. They had partial relief. Soon after cessation of treatment, the allergic symptoms started again. In 65 percent of the cases, emergency relief was necessary from time to time. The patients had to resort to Tedral, adrenalin oil and vapor atomization, Arlcaps and other ephedrin preparations, antihistaminic and other drugs. An assay of the improvement in the controlled series was about 25 percent as compared to 95 percent for the ethylene disulphonate series.

I wish to thank Mr. Edward H. Spicer, President of Spicer & Gerhart Co. for supplying the 2 cc. ampoules and sterile syringe and needle sets of ethylene disulphonate to carry on this clinical research. Thanks also to Adrian Kammeraad, Ph.D. of Van Patten Pharmaceutical Co. for supplying me with liberal quantities of Sodascorbate tablets for clinical research.

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317 E. 17th St.

RICE DIET FOR HYPERTENSION

Question:

What is the present status of the "rice diet" for hypertension. — *M.D., Des Moines, Iowa.*

Answer:

The rice diet to which you refer was announced some five years ago, and has been tried in a number of institutions and by competent investigators. I asked a group of such men their opinion and found that they were agreed that the diet would occasionally help a patient with *malignant* hypertension when nothing else would but that it had no place in the treatment of office patients because the diet was so monotonous that the patient promptly broke it, unless he was in the hospital.

A simple method of therapy for office patients is to give small doses of phenobarbital three or four times daily and a salt free diet (no table salt, no salt used in cooking, no soda, no laxatives or antacids with sodium or other forms of salt, no broths or soups, etc.)

Pain in the Shoulder and Arm

By CHARLES D. MARPLE, M.D., *San Anselmo, California*

THAT cervical ribs cannot explain all neurovascular syndromes involving the shoulder girdle and upper limbs is obvious since such syndromes are common while cervical ribs are rare. Pressure on the nerve roots of the brachial plexus may result from prolapsed intervertebral disc, from osteophytes or from recurrent subluxation of one vertebra upon another (1). Minor degrees of intervertebral pressure give rise to symptoms difficult to distinguish from those caused by pressure on, or stretching of the brachial plexus.

Outside of the spinal column, the brachial nerves are accompanied closely by the main vessels to the upper limb and pressure syndromes are apt to include signs and symptoms both of neurological and of vascular origin. Circulatory changes vary from tingling, numbness, coldness and cyanotic pallor of the hand to complete obliteration of the major pulses with gangrene of one or more fingers. In England, tingling, burning pain, numbness and coldness of the fingers is common among middle aged and elderly women suffering fatigue, unaccustomed manual work and prolonged carrying of shopping baskets as a result of atony of the shoulder girdle, drooping of the shoulder and stretching of the brachial plexus over the first rib or anterior edge of the scalenus medius. Symptoms are often relieved by rest, followed by graduated exercises.

Anatomical variations in the pathways of vessels and nerves are an obvious source of pressure and stretching. The shape and capacity of the cervico-brachial outlet may be altered by structural anomalies of the upper thoracic outlet, narrowing the space between the clavicle and the first rib where pressure is exerted upon the neuro-vascular bundle when the limb is in certain positions (2), and is, indeed, continually altering with movements of the shoulder and arm. Accessory ribs may be present (3) or the floor of the cervico-brachial tunnel (the upper thoracic outlet) may be altered by lateral curvatures of the spine, or by maldevelopments of the first rib.

The sharp anterior border of the scalenus medius forms a ridge over which the plexus may be stretched, particularly if the muscle attachment is far forward on the first rib. The scalenus anticus forms an angle with the first rib (costo-scalene triangle) through which the subclavian artery and lower portions of the brachial plexus pass. Spasm followed by thickening of the anterior scalene can narrow this triangle and compress its content against the first rib (4). Walshe, et. al. (5) stress the importance of wear and tear on the walls of the subclavian artery which become worn and scarred and bound down by scar tissue to the first rib and to the region of the stellate ganglion.

Recently certain British authors have claimed that all vascular changes are produced by irritation of sympathetic fibers which accompany the lower portions of the brachial plexus. Since these fibers are distributed to blood vessels at lower levels, their irritation leads to vascular spasm and secondary changes in the vessel walls. This hypothesis is supported by the clinical observation that thrombosis usually occurs at lower levels where the vessels are innervated by these particular fibers. Such explanations have been criticized by Lewis and Pickering, by Falconer and Weddell and by Walshe (6), who explain the process as a momentary nipping of the vessel between the clavical and an abnormal rib with resulting vascular damage and the sequellae of dilatation, aneurysm, thrombosis and periarterial fibrosis. Costoclavicular compression can account for phenomena arising from abnormal and even normal first rib arrangements and assumes a physiological as well as pathological significance. It explains the obliteration of the pulse when traction is exerted on the dependent arm and when the arm is elevated. Proof of its exist-

ence in venograms and in direct observations at operation.

Telford and Mottershead (7) challenge the concept of a costoclavicular syndrome except in a small group of persons when the shoulder is forcibly retracted backwards or the arm fully elevated. Depression of the shoulder by traction obliterates the radial pulse, but not the upper axillary artery which in relation to the clavicale. Depression of the shoulder forces the clavicle forward and downward so that the costoclavicular space is actually widened. These authors believe that compression occurs distal to the clavicle and is due to an anatomical disposition of the axillary artery in some individuals which allows it to be squeezed between the lateral and medial heads of the median nerve when the shoulder is depressed. Symptoms referable to the plexus in such circumstances are explained by the stretching of the plexus over an accessory rib, an abnormal first rib, or the anterior edge of the scalenes medius: the scalenes anticus is ignored as a causative agent.

Irving Wright (8) has described a neurovascular syndrome produced by hyperabduction of the arms which is capable of producing gangrene secondary to occlusion of the subclavian artery and sensory disturbances which are probably due to tension ischemia of the brachial plexus. Four patients developed the syndrome by sleeping for prolonged periods in the supine position with their arms hyperabducted while in a fifth case the symptoms were aggravated by shoulder injury. Other cases have developed the syndrome as a result of occupational hyperabduction. Wright has presented evidence that occlusion of the subclavian artery by hyperabduction of the arm is a normal phenomenon. Persons whose pulses can be occluded in the hyperabducted position should refrain from sleeping or working with the arms in that position. In persons whose arms are splinted or cast in the hyperabducted position, special attention should be paid to the pulse and to complaints of numbness or paresthesia which may presage neurovascular complications.

All recent writers emphasize that no one mechanical cause can explain all cases and that possibly there are several factors operating in every case. Conservative measures should be utilized to the utmost before surgical intervention is contemplated. This is obvious in the light of the current conflicting views.

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Clinical Medicine

In his medical education, the future practitioner spends most of his time learning to diagnose those conditions which he will see the least number of times in practice. The apparent assumption is that he will be forced to learn the common conditions from personal experience.—B. V. WHITE, M.D. and C. F. GESCHICKTER, M.D. in "Diagnosis in Daily Practice" (Lippincott, Publishers).

[Medical editors are partially to blame for the warped attitude toward common conditions. The intern reads case reports of uncommon diseases in medical journals but does not learn about the seriousness of sore throats, for example, or the possible incapacitating sequelae of rheumatic fever, otitis media and so on. *Clinical Medicine* will continue to present modern methods of recognition and management of those conditions encountered frequently by the practioner. —Ed.]

Diagnostic Errors: Asymptomatic Tuberculosis

By JAMES F. BRAILSFORD, M.D., *Birmingham, England*

THERE is a trend by modern chest experts to regard pulmonary tuberculosis as symptomless and place reliance on radiographic appearances alone — indeed, *they treat the radiographic appearance rather than the condition of the patient.* As with other specialties, there is a tendency to develop specialized technics and with them, a jargon which is outside the range of other specialists or general practitioners. The latter trust to the honesty and integrity of their specialist friends and rarely seek to verify the contentions which are put to them. The radiologist has the means of verifying or contesting many claims, and perhaps because of this, his cooperation may be avoided. This sequence of events accounted for the following:

The patient, a girl in her twenties, was sent to me for screening (fluoroscopy) of the chest to ascertain if the right diaphragm was paralyzed, following a right phrenic nerve crushing. I observed that the right diaphragm was paralyzed but could see no lesion in the lungs. I learned that a radiograph had been taken some days before, and taken from the x-ray department without awaiting the radiologist's interpretation.

On obtaining the radiograph, I exhibited it to three radiologic students who diagnosed a cavity at the right apex with much surrounding reaction. My opinion was that the abnormal shadowing was due to a ringlet of hair that had fallen over the apex before the x-ray exposure.

This was proved to be the case. The girl had rather greasy ringlets which dropped onto her shoulder when she stood up.

But why had the phrenic crush been performed? On examining the case sheet, I learned that the patient had no cough, no sputum or other symptoms. Some "sputum" was sent to the bacteriologist who reported that it was saliva and there were no tubercle bacilli. She appeared to be in good health and had a good appetite. Surely the latter should have caused the clinician to doubt the radiographic appearance, but alas, "symptomless tuberculosis" held sway.

20 Highfield Road, Edgbaston.

The Febrile Asthmatic

Question:

When is fever important in an asthmatic patient?—M.D., Chicago Ill.

Answer:

Uncomplicated asthma is not associated with fever. The physician should search for the underlying cause of the fever, which may or may not be related to the asthma. Relief of the asthma depends upon relief of the cause of the fever. Clinical findings are usually sufficient to classify the patient for proper treatment. An intravenous injection of typhoid vaccine may relieve prolonged attacks of bronchial asthma.—W. A. SODAMAN, *M.D.*, of the *Oschner Clinic.*

Problems in Practice

(CONSULTATION SERVICE)

When Should Antibiotics Be Used?

Question:

What general principles should be kept in mind when considering use of antibiotics in the treatment of infections? M.D., Detroit, Michigan.

Answer:

Don't treat *fever* with antibiotics. Make sure that an infection is present. Be slow to treat children with antibiotics as, "The vast majority of infections in children are due to virus and other agents which are not affected by antibiotics. The physician must constantly keep in mind the need for differentiating those children who require specific treatment and will respond quickly, from the larger number who have self-limited virus infections of an ill-defined nature, in whom specific treatment is neither necessary or successful." (ROBERT B. LAWSON, M.D., *Winston-Salem, N.C.*)

Perrin Long has prepared a series of tables (*J.A.M.A.* Oct. 1, 1949) suggesting the proper antibiotic for each disease and organism. (Intravenous aureomycin is not yet widely available).

Table 1.—Present Day Usage of Antibiotics in Infections

	Type of Infection or Disease	Penicillin G	Streptomycin	Aureomycin	Chloramphenicol
I.	Group A beta hemolytic streptococcic infections	I	III	II	..
II.	Alpha hemolytic streptococcic infections	I	II	II	..
III.	Streptococcus faecalis infections (group D)	II	..	I	..
IV.	Pneumococcic infections	I	III	II	..
V.	Meningococcic infections	I	..	U	U
VI.	Gonococcic infections	I	II	III	III
VII.	Staphylococcic infections				
	A. Mild or moderate	I	..	II	..
	B. Severe	I*	..	II*	..
VIII.	Acute brucellosis	..	..	I	I
IX.	Whooping cough	..	?	?	U
X.	Tularemia	..	II	I	U
XI.	Typhoid	..	..	II	I
XII.	Influenzal meningitis				
	A. Moderate	..	..	I	U
	B. Severe	..	II+S.D.	I+S.D.	U

Key: I indicates first choice; II, second choice; III, third choice. A blank signifies that the drug is of little value. U means that the effect is unknown. S.D. stands for sulfadiazine.
* Combined therapy is used.

Table 2.—Present Day Usage of Antibiotics in Infections

	Type of Infection or Disease	Penicillin G	Streptomycin	Aureomycin	Chloramphenicol
I.	Urinary tract infections				
	A. Escherichia coli	..	II	I	I
	B. Aerobacter aerogenes	..	II	I	I
	C. Proteus vulgaris	..	II	..	I
	D. Pseudomonas aeruginosa	..	I	..	II
	E. Streptococcus faecalis	II	..	I	..
II.	Tuberculosis	..	I	U	U
III.	Chancroid	..	I	I	..
IV.	Friedländer's bacillus infections	..	I	U	U
V.	Salmonella infections (food poisoning)	..	..	?	?
VI.	Bacillary dysentery	..	..	U	U
VII.	Plague	..	I	U	U
VIII.	Subacute bacterial endocarditis				
	A. Alpha Streptococcus	I	..	II	..
	B. Str. faecalis (group D)	I*	I*	I*	..
	C. Staphylococcic	I*	..	II*	..
	D. Gram-negative bacillary	..	I*	I*	I*
IX.	Trachoma	I	U	U	U
X.	Surgical conditions of the bowel (preoperative and postoperative)	..	I-SS	U	U
XI.	Pulmonary conditions (preoperative and postoperative)	I	I	U	U

Key: I indicates first choice; II, second choice; III, third choice. A blank signifies that the drug is of little value. U means that the effect is unknown. SS stands for succinylsulfathiazole.
* Combined therapy is used.

Table 3.—Present Day Usage of Antibiotics in Infections

	Type of Infection or Disease	Penicillin G	Streptomycin	Aureomycin	Chloramphenicol
I.	Rickettsial diseases	..	..	I	I
II.	Primary atypical pneumonia	..	..	I	U
III.	Psittacosis	II	..	I	U
IV.	Lymphogranuloma venereum	II	..	I	U
V.	Anthrax	I+S.D.	..	U	U
VI.	Syphilis	I	..	II	..
VII.	Yaws	I	..	U	U
VIII.	Granuloma inguinale	..	I	I	U
IX.	Rat bite fever				
	A. Spirillum minus	II	..	I	U
	B. Streptobacillus moniliformis	..	I	U	U
X.	Gas gangrene	I+S.D.	..	U	U
XI.	Influenza	..	..	..	..
XII.	Common cold	..	..	..	..
XIII.	Rheumatic fever (prophylaxis only)	I (or S.D.)	..	..	..

Key: I indicates first choice; II, second choice; III, third choice. A blank signifies that the antibiotic is of little value. U means that the effect is unknown. S.D. stands for sulfadiazine.

(*Continued on next page*)

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Community Health

"Health cannot be given to the community by laws, motion pictures, offering advice, or finding those who fail to report disease. The patient, the community can be as healthy as it chooses or as sick as it is willing to stand for. Only when the community fully understands the reasons for these things will it take an active interest in public health work."—*Haven Emerson, M.D.*

Table 4.—Dosage Schedules of Aureomycin and Chloramphenicol for Children

Severity of Illness	Aureomycin: Initial Priming Dose, Mg. per Kg. of Body Weight		Aureomycin: Total Daily Maintenance Dose, Mg. per Kg. of Body Weight		Chloramphenicol: Initial Priming Dose, Mg. per Kg. of Body Weight	Chloramphenicol: Total Daily Maintenance Dose, Mg. per Kg. of Body Weight
	Oral*		Oral†		Oral*	Oral†
Moderate	10		25-50		60	30-60
	Oral*	Intravenous‡	Oral†	Intravenous§	Oral	Oral
Severe	20	5	100	15	60	60-120

* The oral priming dose should be split into three parts and given at hourly intervals for three doses.
† The oral maintenance dose should be split into six parts and a part given every four hours.
‡ The intravenous priming dose should be given in one dose.
§ The intravenous maintenance dose should be split into three parts and a part given every eight hours.

Table 5.—Dosage Schedules of Aureomycin and Chloramphenicol for Adults

Severity of Illness	Aureomycin: Initial Priming Dose, Mg. per Kg. of Body Weight		Aureomycin: Total Daily Maintenance Dose, Mg. per Kg. of Body Weight		Chloramphenicol: Initial Priming Dose, Mg. per Kg. of Body Weight	Chloramphenicol: Total Daily Maintenance Dose, Mg. per Kg. of Body Weight
	Oral*		Oral†		Oral*	Oral†
Moderate	10		30		60	30-60
	Oral*	Intravenous‡	Oral†	Intravenous§	Oral	Oral
Severe	15	5	50-60	15	60	60-120

* The oral priming dose should be split into three parts and given at hourly intervals for three doses.
† The oral maintenance dose should be split into six parts and a part given every four hours.
‡ The intravenous priming dose should be given in one dose.
§ The intravenous maintenance dose should be split into three parts and a part given every eight hours.

Chronic Headache

Question:

What sort of studies should be carried out on patients with chronic headache? A common patient complaint is headache for which the usual clinical examination and history give no clue as to cause, although many such patients are nervous and anxious.—M.D., Duluth, Minn.

Answer:

Chronic headaches can be roughly divided into four groups: 1. Psychogenic, 2. Migrainous, 3. Post-traumatic and 4. the very small group of tumors.

Pain apparently arises from distention of cranial blood vessels (relieved by ergotrate, as for migraine), or from sustained contractions of muscles of the neck and head (relieved by injections of novocaine solution into tender points in these muscles, or by vasodilators as nicotinic acid or histamine injected parenterally), from scarring of soft tissues of head (if scar is tender, inject with novocaine) and most commonly from psychogenic reasons (let the patient talk over his problem).

Analgesics such as aspirin, aspirin with acetphenetidin and caffeine or with a

barbiturate are usually effective in relieving chronic headache. Occasionally ephedrine sulfate alone or with a sedative dramatically relieves such headaches, indicating that allergy may be a cause (don't forget the psychic angle; maybe lactose capsules would have same result).

Psychogenic headaches occur regularly at times of psychic stress or conflict and are not typical of true migraine. Migraine headaches occur in attacks, often with prodromal symptoms, and may be relieved early by inhaling amyl nitrite, or nicotinic acid tablets orally in doses of 100 to 200 mg. (enough to make face flush); injection intramuscularly of 0.25 to 0.50 mg. of ergotamine tartrate will often stop an attack. If not, give codeine phosphate 0.60 mg. hypodermically.

The most important thing about chronic headache is to understand the patient. This takes a number of talks.

Local Sulfanilamide After Tonsillectomy

Question:

How may one prevent infection after tonsillectomy? Does local application do any good? M.D., Birmingham, Ala.

Answer:

Following tonsillectomy, sulfanilamide powder is placed in the tonsillar fossa by a sponge or powder blower, at the end of the operation, at the end of each 4 hours for 24 hours. Post-operative bleeding does not occur. No positive blood culture can be taken, post-operatively. The temperature and leucocyte count are lower post-operatively, and there is less slough, less inflammatory reaction, and bad taste. Secondary infections do not occur. Healing is more rapid. The absorption into the blood is at a very low level and there are no reactions to the drugs.—Method of CARL N. VICTOR, M.D., of *Louisville, Ky.*

Simple Diagnosis of Diabetes

Question:

Supposing that sugar has been discovered in the urine, how can one be sure that the patient has diabetes? A fasting blood-sugar test in the morning will only be high in cases of advanced diabetes, not in the early mild cases.—M.D., Rochester, N. Y.

Answer:

"The blood-sugar should be taken 2½ hours after a heavy carbohydrate meal, counting from the time the patient starts eating. It is immaterial which meal it is. The blood-sugar taken 2½ hours after the meal should be normal. If the blood-sugar is high, that is, over 180 milligrams percent, we are dealing with diabetes and the diagnosis is established. If the blood-sugar is slightly elevated, 126 to 140 milligrams percent, a glucose tolerance curve must be run. We must give 100 grams of glucose, and then have blood-sugar tests taken ½, 1, 2, and 3 hours after the glucose. If the insulinogenic function is intact, there will be a slight rise and quick fall of the blood-sugar level, so that in 2 hours, the blood-sugar is normal. If the function is lagging, the blood-sugar will rise higher and the fall of the blood-sugar will be equally delayed, so that it will not reach normal before the end of the third hour, or even later, if the diabetes is advanced."—HENRY J. JOHN, M.D., in *"Diabetes" (C. V. Mosby Co., Publishers).*

[This is the simplest, most practical method for office practice. Ed.]

Thumbnail Therapeutics

Antihistaminic Drugs for the Common Cold

The initial phase of the common cold is an allergic reaction. Antihistaminic drugs interrupt this allergic reaction and abort the common cold, when treatment is begun in the initial phase. The effectiveness of these drugs is not dependent upon their sedative effect. Two or three doses at four-hour intervals are adequate. Their continued use in the course of the disease, as a palliative treatment, shortens the period of morbidity.

Complications of colds should be treated with penicillin and sulfonamide drugs or surgery, as required.

Benadryl had a pronounced sedative effect in almost every case. Pyribenzamine, Thenylene and Histadyl all produced a moderate degree of sedation. Neoantergan was found to have little or no sedative effect. To counteract the sedative effect of these drugs, benzedrine may be given in 2.5 to 5. mg. doses during the day.—JOHN M. BREWSTER, M.D., in *U.S. Naval Medical Bulletin*, Jan.-Feb., 1949.

Button for Ascitis

The simple feature of a glass button, which permits drainage of ascitic fluid from the peritoneal cavity to the subcutaneous tissues, often corrects ascites due to cirrhosis of the liver.—S. M. COPLAND, M.D. in *New Orleans Med. & Surg. J.*, June 1949.

Streptomycin in Whooping Cough

Twenty-five milligrams per pound of body weight per child is given daily in divided doses, at three-hour intervals for an average of seven days. Streptomycin materially reduces the mortality rate.—V. H. GORDON and P. J. ALMADEN, in *Jrnl. of Ped.*, March, 1949.

Picrotoxin and Metrazol

Stimulants of the central nervous system include picrotoxin and metrazol as the most valuable analeptics available today. Picrotoxin is the most potent and the most dangerous to use. It should be only employed in deep depression. The use of such stimulants in the treatment of depression should be only part of a completed schedule of treatment, including oxygen, fluid, pressure drugs, and pulmonary ventilation, if necessary . . . plus the use of another stimulant, if necessary.—Council on Pharmacy and Chemistry, *Jrnl. of A.M.A.*, March 19, 1949.

Penicillin Injection for Bartholin's Abscess

The aspiration of as much pus as possible from a gonorrheal infection of Bartholin's gland and the injection of 200,000 units of penicillin in aqueous solution often cures abscess dramatically.—C. E. WILLINGHAM, M.D., in *Texas S.J.M.*, June 1949.

Seasickness and Airsickness

The use of Dramamine (Searle) definitely reduced the incidence of seasickness in a large group of soldiers being transported across the rough Atlantic ocean. The same drug cut the incidence of airsickness in half in a group of military personnel undergoing rough flights at Randolph Field, Texas.

Dramamine is given in 100 mg. doses every 5 hours for seasickness or 100 milligrams is given from 30 to 45 minutes before the flight begins.—LESLIE GAY, *The Dept. of Allergy, Johns Hopkins Hospital, Baltimore, Md;* BEN STRICKLAND, *U. S. Air Forces, School of Aviation Medicine, Randolph Field, Texas, Science*, April 8th, 1949.

Diagnostic Pointers

Volvulvus

The main features are a sudden onset of severe abdominal pain followed by a very characteristic abdominal distension. The skin is remarkably tense and shiny. If the tumor can be felt it will give a tympanitic note on percussion. Tenderness may be present on the left side of the abdomen, that is over the twisted mesentery. As the condition progresses the pulse becomes rapid and there are evidences of toxemia. Even with operative interference the death rate is very high and even if the patient survives there is always a risk of the condition recurring at a later date. — S. GLASER, M. D., in *Medical World* (England)

Limping in Children

Any child 9 to 16 years of age who limps and/or complains of pain in the hip, anterior part of thigh or knee, should be suspected of having a slipped epiphysis of the femur. The diagnosis can be confirmed by x-rays of the hip in lateral and anteroposterior views. Treatment of patients with a minimal slipping includes nailing of the epiphysis; pronounced slipping is best treated by arthotomy, reposition of the displaced epiphysis and fixation by a three-flanged nail. —A. KLEIN, M. D. in *J.A.M.A.*, Feb. 14, 1948.

Malignancy of Bone

When the x-ray contour of an osseous tumor is unbroken, the lesion is usually benign. A sudden break in the contour of a bone, as seen by x-ray, speaks for malignancy. When invasion of surrounding tissue has taken place, lack of definite demarcation of the invading portion of the tumor emphatically suggests a malignant lesion.—*Iowa Cancer Bulletin*, Vol. 1, No. 9.

Injuries About the Shoulder

A dislocation at the shoulder may be associated with a fracture. Preferably it should not be reduced until an x-ray has been taken.

An incomplete acromio clavicular dislocation is often overlooked. If one x-rays both shoulders while traction on both arms is maintained, one may have positive proof that the lesion is present.

A sternoclavicular dislocation is rare. —JAMES W. MARTIN, M.D., Creighton University School of Medicine, Omaha, Neb.

Abdominal Pain and Cystitis from Sexual Maladjustment

Women after prolonged love making but without intercourse, routinely experience low abdominal pain from unrelieved congestion of their pelvic organs—and often develop temporary bladder irritability. Chronic sexual maladjustment may result in "chronic cystitis" in which pyuria or bacteruria is never found and in which local therapy relieves slowly if at all.

Any woman with "cystitis" should have a catheterized specimen of urine studied for pus or bacteria in the stained sediment. One-third will be found to have normal sediments; chemotherapy will not help this group. Postmenopausal senile urethritis and vaginitis cause symptoms of cystitis.—DONALD SMITH, M.D. in *Medical Staff Conferences*, University of California Hospital, Feb. 1949.

Periodic Fever

Some persons are susceptible to recurrent fever, periodic abdominal pain or joint pain (intermittent hydrarthrosis), periodic purpura, edema or periodic paralysis. Periodic disease should be regarded as a manifestation of a rhythm of life.—H. A. REIMANN, M.D. in *J.A.M.A.*, Sept. 17, 1949.

New Books

Any book reviewed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE, Waukegan, Ill., is accompanied by a check for the published price of the book.

Control of Pain in Childbirth

By C. B. Lull, M.D., and R. A. Hingson, M.D. Lippincott Co. 1948. $12.00.

The third edition lists and describes all types of analgesia and anesthesia for deliveries, vaginal and abdominal and for treatment of other conditions, such as toxemias of pregnancy. Technics are described with admirable detail and clarity.

Clinical Urology

By L. E. McCrea, M.D., Professor of Urology, Temple University Medical School, Philadelphia. F. A. Davis Co. 1949. $6.50.

A *practical* small text on urologic conditions, outlining diagnosis and treatment for the general practitioner and for the urologist. The book is written to give help, not to indirectly suggest consultation of for all urologic conditions, no matter how minor.

Psychiatry: Its Evolution and Present Status

By William C. Menninger, M.D. Cornell University Press. 1948. $2.00.

The author, a commanding figure in present day psychiatry, summarizes the chief concepts in that field, their application in civilian and military practice and a look to the future.

Cancer of the Sophagus and Gastric Cardia

Edited By G. T. Pack, M.D., Attending Surgeon, Memorial Hospital for Cancer, N.Y.C. C. V. Mosby Co. 1949. $5.00.

A symposium on the use of radiation and surgical therapy for malignant tumors of the esophagus and cardiac portion of the stomach, depicting many points in technic and progress in the treatment of this condition.

The Engaged Couple Has a Right to Know

Abner I. Weisman, M.D., Associate Attending Gynecologist and Research Associate, Jewish Hospital, New York; Renbayle House. $3.00.

Straightforward discussion of the problems involved in physical and psychic conflicts during engagement, and preparation for happy marriage. The advantages of a complete premarital examination are presented.

NOTE: To expedite the inclusion of the many books received for review for which we have not space to run long, formal reviews, this new form of giving pertinent facts will be used.

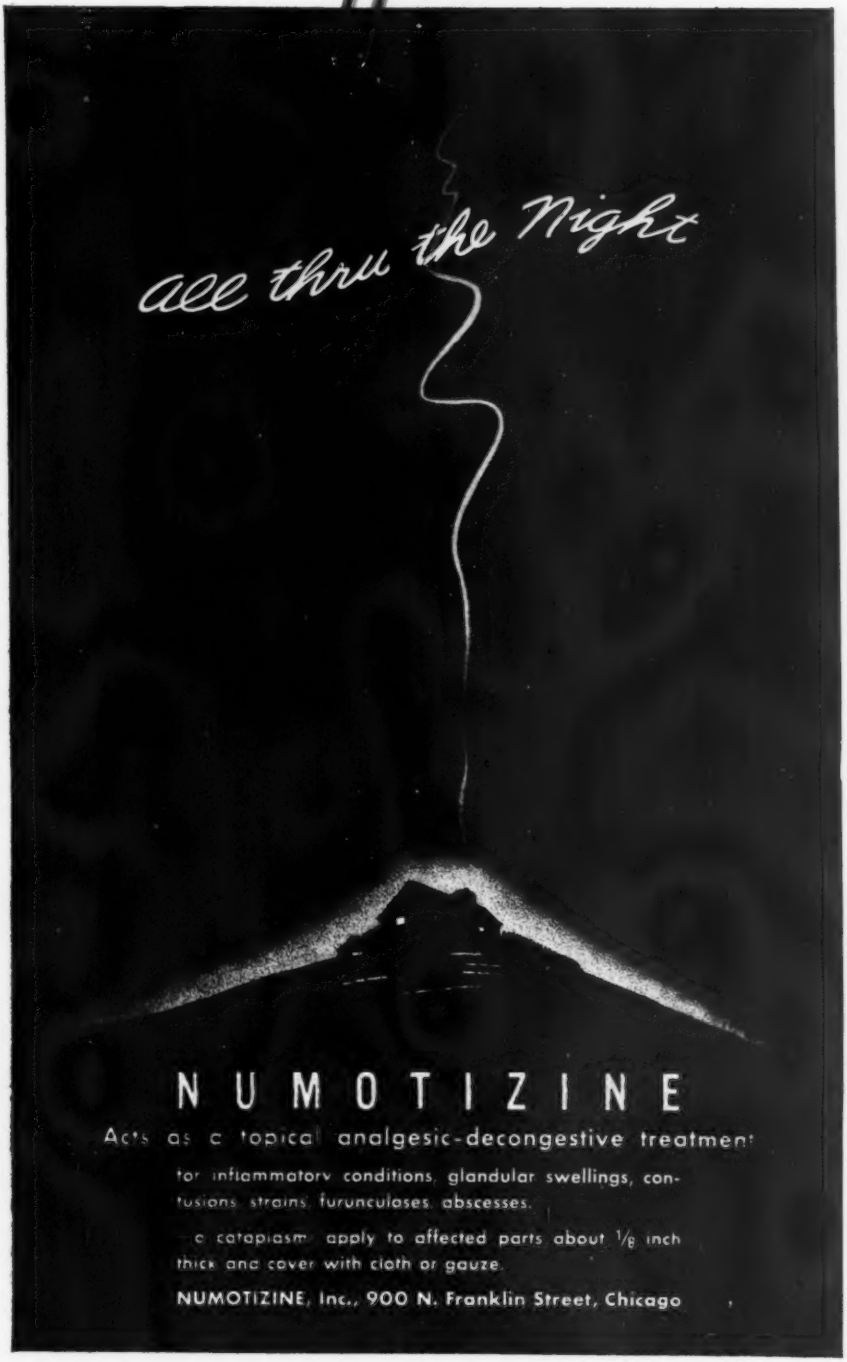
MEDICAL PUBLICATIONS

TITLE *Author* Publisher — Price	OF INTEREST TO	COMMENTS
THE TRUTH ABOUT HYPNOTISM *By V. Ahleim* New Age Publishing Co.—$2.50	Laity Students	Facts about hypnotism
MASSAGE AND REMEDIAL EXERCISES IN MEDICAL AND SURGICAL CONDITIONS *By N. M. Tidy* Williams and Wilkins—$6.00	Osteopaths Physiotherapists	Rehabilitation
SYNOPSIS OF SURGICAL ANATOMY *By A. L. McGregor* Williams and Wilkins—$6.50	Surgeons	Anatomy visualized
TREATMENT OF HEART DISEASE *By Wm. A Brams* W. B. Saunders—$3.50	General Practitioners	Practical therapy
PATHOLOGY OF TUMORS *By R. A. Willis* Mosby Co.—$20.00	Pathologists	Clear flowing descriptions
ANATOMY AND PHYSIOLOGY *By V. Vogel, J. Perkinson* Mosby Co.—$2.75	Nurses	Concise outline examination
LABORATORY MANUAL OF COMPARATIVE ANATOMY *By W. H. Atwood* Mosby Co.—$2.75	Medical Students	Atlas and Lab outline

MEDICAL PUBLICATIONS

TITLE *Author* Publisher — Price	OF INTEREST TO	COMMENTS
MEDICINE OF THE YEAR *By J. B. Youmans* Lippincott Co.—$5.00	General Practitioners	Excellent abridgement of last years advances
BLOOD CELLS AND THEIR REACTIONS *By Wm. Dameshek* The Journal of Hematology—$3.75	Hematologists	Blood formation and alteration
AN ATLAS OF AMPUTATIONS *By D. B. Slocum* Mosby Co.—$20.00	General and Orthopedic Surgeons	Experience of World War II
ORAL HISTOLOGY AND EMBRYOLOGY *By B. Orban* Mosby Co.—$8.00	Pathologist Oral Surgeons	Authoritative symposium
BRAIN TUMORS *By E. Sachs* Mosby Co.—$15.00	Neurosurgeons Pathologists	Diagnosis and management
DENTAL ANATOMY *By R. C. Ziesz* Mosby Co.—$14.00	Dentists	Illustrated atlas
THE DEVELOPMENT OF GYNECOLOGICAL SURGERY AND INSTRUMENTS *By J. V. Ricci* Blakiston Co.—$12.00	Medical Historians	From Hippocrates to the antiseptic epoch
NEW GOULD MEDICAL DICTIONARY *By H. W. Jones and A. Osol* Blakiston Co.—$8.50	All physicians	A striking and worthy departure
INTRAMURAL SPORTS *By L. E. Means* Mosby Co.—$5.75	School physicians and athletic directors	A complete text
PSYCHIATRY FOR NURSES *By L. Karnosh* Mosby Co.—$4.00	Nurses	Wholesome psychiatry
THE PSYCHOANALYTIC READER *By R. Fliess* International Universities Press—$7.50	Psychiatrists	Unattainable papers translated and collected
A.M.A. INTERNS' MANUAL Saunders Co.—$2.25	Interns	Handbook of information
HISTOPATHOLOGY OF IRRADIATION FROM EXTERNAL AND INTERNAL SOURCES *By Wm. Bloom* McGraw-Hill Book Co.—$8.00	Radiologists Pathologists	First of its kind
PROCTOLOGY FOR THE GENERAL PRACTITIONER *By F. C. Smith* Davis Company—$6.00	General Practitioners	Clear advice in recognition and care
AESCULAPIUS COMES TO THE COLONIES *By M. B. Gordon* Ventnor Publishers—$10.00	Medical Historians	A comprehensive story of Colonial medicine
PHYSIOLOGY OF EXERCISE *By A. H. Steinhaus* George Williams College	Medical Students or Lay Students	Effects of exercise
THE EPITOME OF ANDREAS VESALIUS *By L. R. Lind* Macmillan Co.	Medical Historians	A real find in medical history
TWENTIETH CENTURY SPEECH AND VOICE CORRECTION *By E. Foreschels* Philosophical Library—$6.00	Speech Therapists	Well rounded symposium
SYMPTOMS IN DIAGNOSIS *By J. C. Meakins* Williams and Wilkins Co.—$7.50	General Practitioners and Internists	Diagnostic essays
TREATMENT BY MANIPULATION *By A. G. Fisher* Harper Brothers—$5.00	General Practitioners Orthopedists Osteopaths	Technic and cautions

TITLE *Author* Publisher — Price	OF INTEREST TO	COMMENTS
CLINICAL AUSCULTATION OF THE HEART *By S. Levine* W. B. Saunders Co.—$6.50	General Practitioners Internists	Deviations of heart sounds descriptions
ORAL AND DENTAL DIAGNOSIS *By K. H. Thoma* W. B. Saunders Co.—$9.50	Dentists	Oral diseases in visual impressions
THE PRACTICE OF REFRACTION *By S. Duke-Elder* C. B. Mosby Co. $6.25	Ophthalmologists	Admirable treatise
FOUR TREATISES OF THEOPHRASTUS VON HOHENHEIM CALLED PARACELSUS *By C. L. Temkin, G. Rosen, G. Zilboorg, H. E. Sigerist* Johns Hopkins Press—$3.00	Medical Historians	Meticulous classics in medical history
A COURSE IN PRACTICAL THERAPEUTICS *By M. E. Rehfuss* Williams and Wilkins Co.—$15.00	All physicians	Unusually good in diagnosis and treatment
THE DRUGS YOU USE *By A. Smith* Revere Publishing Co.—$3.00	Patients	Guide for laymen
HANDBOOK OF MATERIA MEDICA, TOXICOLOGY AND PHARMACOLOGY *By F. R. Davison* Mosby Co. $8.50	General Practitioners and Internes	Most useful text in its field
FEMALE SEX ENDOCRINOLOGY *By C. H. Birnberg* Lippincott Co.—$4.00	General Practitioners	Summarizes present knowledge
GERIATRIC MEDICINE *By E. J. Stieglitz* Saunders Co.—$12.00	General Practitioners and Geriatrists	Primarily clinical and of immediate use
BIOLOGY OF DISEASE *By E. Moschowitz* Grune and Stratton—$4.50	Internists	Transitions of morbid states
PSYCHOSOMATIC MEDICINE *By E. Weiss* Saunders Co.—$9.50	General Practitioners	A landmark in psychosomatic therapy
RAPID MICROCHEMICAL METHODS FOR BLOOD AND C.S.F. EXAMINATIONS *By F. Rappaport* Grune & Stratton, Inc.—$8.75	Clinical Pathologists	Time saving procedures
TUBERCULOSIS *By F. M. Pottenger* Mosby Co.—$12.00	Phthisiologists	Recognition and therapy
STUDIES IN PSYCHOSOMATIC MEDICINE *By F. Alexander and T. M. French* Ronald Press Co.—$7.50	General Practitioners	General principles
THE HYGIENE OF THE BREASTS *By C. F. Dowknott* Emerson Books, Inc.—$2.50	General Practitioners	Brief survey of applications
ABDOMINAL OPERATIONS *By R. Maingot* Appleton-Century-Crofts, Inc.—$16.00	Surgeons	Monograph of English Surgical Practice
HOW TO BECOME A DOCTOR *By G. R. Moon* Blakiston Co.—$2.00	Students	On entering the profession
MAN-MADE PLAGUE: A PRIMER ON NEUROSIS *By W. G. Niederland* Rebenbayl House—$3.50	Layman	Information to the neurotic
THE ASCEPTIC TREATMENT OF WOUNDS *By C. W. Walter* Macmillan Co.—$9.00	Surgeons and nurses	Illustrated surgical asepsis
TREATMENT OF SOME CHRONIC AND "INCURABLE" DISEASES *By A. T. Todd* Williams and Wilkins Co.—$7.00	General Practitioners	Thought stimulator


all thru the Night
NUMOTIZINE
Acts as a topical analgesic-decongestive treatment
for inflammatory conditions, glandular swellings, contusions, strains, furunculoses, abscesses.
As a cataplasm: apply to affected parts about 1/8 inch thick and cover with cloth or gauze.
NUMOTIZINE, Inc., 900 N. Franklin Street, Chicago

MEDICAL PUBLICATIONS

TITLE *Author* Publisher — Price	OF INTEREST TO	COMMENTS
CLINICAL AUSCULTATION OF THE HEART *By S. Levine* W. B. Saunders Co.—$6.50	General Practitioners Internists	Deviations of heart sounds descriptions
ORAL AND DENTAL DIAGNOSIS *By K. H. Thoma* W. B. Saunders Co.—$9.50	Dentists	Oral diseases in visual impressions
THE PRACTICE OF REFRACTION *By S. Duke-Elder* C. B. Mosby Co. $6.25	Ophthalmologists	Admirable treatise
FOUR TREATISES OF THEOPHRASTUS VON HOHENHEIM CALLED PARACELSUS *By C. L. Temkin, G. Rosen, G. Zilboorg, H. E. Sigerist* Johns Hopkins Press—$3.00	Medical Historians	Meticulous classics in medical history
A COURSE IN PRACTICAL THERAPEUTICS *By M. E. Rehfuss* Williams and Wilkins Co.—$15.00	All physicians	Unusually good in diagnosis and treatment
THE DRUGS YOU USE *By A. Smith* Revere Publishing Co.—$3.00	Patients	Guide for laymen
HANDBOOK OF MATERIA MEDICA, TOXICOLOGY AND PHARMACOLOGY *By F. R. Davison* Mosby Co. $8.50	General Practitioners and Internes	Most useful text in its field
FEMALE SEX ENDOCRINOLOGY *By C. H. Birnberg* Lippincott Co.—$4.00	General Practitioners	Summarizes present knowledge
GERIATRIC MEDICINE *By E. J. Stieglitz* Saunders Co.—$12.00	General Practitioners and Geriatrists	Primarily clinical and of immediate use
BIOLOGY OF DISEASE *By E. Moschowitz* Grune and Stratton—$4.50	Internists	Transitions of morbid states
PSYCHOSOMATIC MEDICINE *By E. Weiss* Saunders Co.—$9.50	General Practitioners	A landmark in psychosomatic therapy
RAPID MICROCHEMICAL METHODS FOR BLOOD AND C.S.F. EXAMINATIONS *By F. Rappaport* Grune & Stratton, Inc.—$8.75	Clinical Pathologists	Time saving procedures
TUBERCULOSIS *By F. M. Pottenger* Mosby Co.—$12.00	Phthisiologists	Recognition and therapy
STUDIES IN PSYCHOSOMATIC MEDICINE *By F. Alexander and T. M. French* Ronald Press Co.—$7.50	General Practitioners	General principles
THE HYGIENE OF THE BREASTS *By C. F. Dowknott* Emerson Books, Inc.—$2.50	General Practitioners	Brief survey of applications
ABDOMINAL OPERATIONS *By R. Maingot* Appleton-Century-Crofts, Inc.—$16.00	Surgeons	Monograph of English Surgical Practice
HOW TO BECOME A DOCTOR *By G. R. Moon* Blakiston Co.—$2.00	Students	On entering the profession
MAN-MADE PLAGUE: A PRIMER ON NEUROSIS *By W. G. Niederland* Rebenbayl House—$3.50	Layman	Information to the neurotic
THE ASCEPTIC TREATMENT OF WOUNDS *By C. W. Walter* Macmillan Co.—$9.00	Surgeons and nurses	Illustrated surgical asepsis
TREATMENT OF SOME CHRONIC AND "INCURABLE" DISEASES *By A. T. Todd* Williams and Wilkins Co.—$7.00	General Practitioners	Thought stimulator

Evidence that Pyribenzamine aborts the Common Cold

Of three antihistaminics tested in the common cold, Gordon[1] found Pyribenzamine "equally or superiorly effective in controlling symptoms and producing fewer and less severe side reactions."

★ **Results of Treatment of the Common Cold with Pyribenzamine**

Investigator	Number Treated	Benefited	%
Gordon[1]	252*	224	89
Murray[2]	494	397	80
Brewster[3]	466*	348	75

*Includes patients treated with other antihistaminics

1. Gordon, J. S.: Laryngoscope, 58:1265, Dec. 1948
2. Murray, H. C.: Indus. Med. 18:215, May 1949
3. Brewster, J. M.: U. S. Nav. M. Bull. 49:1, Jan.-Feb. 1949

THREE THERAPEUTIC APPROACHES

1. Pyribenzamine-Ephedrine for systemic treatment

Each tablet contains 25 mg. of Pyribenzamine hydrochloride and 12 mg. of ephedrine sulfate. This combination synergistically promotes decongestion of the entire respiratory tract including the nasopharyngeal mucosa.

2. Pyribenzamine Nebulizer to control nasal symptoms

Immediate relief of allergic symptoms with no systemic side effects. Pocket-size nebulizer distributes a mist of minute droplets of Pyribenzamine hydrochloride Nasal Solution 0.5% throughout nasal passages.

3. Pyribenzamine Expectorant to control cough

Each teaspoonful contains 30 mg. of Pyribenzamine citrate, 10 mg. of ephedrine sulfate and 80 mg. of ammonium chloride. Highly effective for relief of cough. Blocks congestive and spasmogenic effects of histamine, shrinks respiratory mucosa and liquefies bronchial secretions.

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PYRIBENZAMINE (brand of tripelennamine) T. M. Reg. U. S. Pat. Off. 2/1956M